



800MHz Radio System Replacement

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Agenda

- 800 Megahertz (MHz) System Background
- System Goals & New Features
- RFP Results
- Capital Costs
- Operating Costs
- Funding Sources
- Project Schedule
- Recommendations
- Council Infrastructure Goals

800MHz System Background

- Primary means of communication for 1,200 public safety and public service radio users
 - Central Services, Development Services, Electric, Environmental Utilities, Fire, Parks, Police, Public Works
- Secondary means of communication for thousands of interoperability users throughout Placer and Sacramento Counties
- In service since 1999
 - 3 towers, 27 transmitters, 12 antenna systems
 - End of Life December 2018

System Goals & New Features

- System Goals
 - Adopt nationwide Project 25 (P25) digital standard to promote competition & interoperability while decreasing costs
 - Increase system reliability, functionality and provide clear communications
- New Features
 - Distributed architecture – increases reliability
 - Encryption – increases Police officer safety
 - GPS – increases Officer & Firefighter safety
 - OTAP – increases efficiency

RFP Results

- Council approval in 2016 to release RFP
- Released RFP structured to allow for “best in breed”
- Exhaustive evaluation process
 - Staff selected various vendors for comprehensive system
 - **Infrastructure:** EF Johnson
 - **Dispatch Consoles:** Zetron
 - **Subscribers:** Motorola (Police),
EF Johnson (all others)
 - **Logging Recorder:** not awarded, future consideration
- Completed contract negotiations with each vendor

Capital Costs

▪ EF Johnson	\$5,034,689.85	
▪ Motorola	\$ 763,539.00	
▪ Zetron	\$ 632,181.04	
▪ Logging Recorder	\$ 150,000.00	(future consideration)
▪ Fleet Services	\$ 8,600.00	(vehicle installations)
▪ Electrical Work	\$ 500.00	
▪ 5% Contingency	<u>\$ 329,475.49</u>	
Total	\$6,918,985.38	

Operating Costs

- Contracts include 5-year extended support paid annually by internal service fund (ISF) distribution
 - Infrastructure: \$197,624.67
 - Dispatch Consoles: \$50,345.25

Funding Sources

- Cost distribution based on hybrid model:
 - Infrastructure costs evenly allocated
 - Subscriber costs allocated by quantities
- Numbers below are placeholders until the cost distribution methodology is finalized.

General Fund **\$4,804,724.00**

Enterprise Fund (PW, Elec. EU) **\$2,460,745.00**

* Note the funding total is higher than project cost as an additional 5% contingency is budgeted, but would require future Council approval if needed.

Project Schedule

- Tentative overview of project schedule

	2017						2018					
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Award Contract												
System Design												
Subscriber Install												
Factory Testing												
System Install												
Site Testing												
Training												
System Migration												

Recommendations

- Recommend Council approves service agreements with EF Johnson, Zetron and Motorola including:
 - Capital costs: \$6,759,885.38 (includes 5%)
 - Annual operating costs: \$253,740.06
- Recommend Council approves out-of-state travel to Texas for system administrator training purposes.

Council Infrastructure Goals

- Modernize key business functions
 - Upgrade infrastructure to meet customer needs
 - Fully fund infrastructure rehab
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- Questions?